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## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:

Peter H. St. George-Hyslop; Paul E. Fraster

Serial No.:

09/689,159

Art Unit:

1647

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Docket No.: 1034/1F808US5

For: GENETIC SEQUENCES AND PROTEINS RELATED TO ALZHEIMER'S DISEASE

## **EXAMINER'S COURTESY COPY** OF PENDING CLAIMS

Box Patent Ext. Assistant Commissioner for Patents Washington, DC 20231

Sir:

73. An antibody which selectively binds a mammalian Presenilin protein having at least 63% overall amino acid sequence identity with a Presenilin 1 having an amino acid sequence as depicted in SEQ ID NO:2.

74: (Amended) The antibody as defined in claim 73, wherein the mammalian Presentlin protein has a sequence as depicted in SEQ ID NOs:2, 4, 134, 136, or 138.

75. (Amended) The antibody as defined in claim 73, which selectively recognizes an amino acid sequence of at least six contiguous amino acid residues as depicted in SEQ ID NOs:2, 4, 134, 136, or or 138; or antigenic fragments.

76. (Amended) The antibody as defined in claim 75, wherein the antibody selectively recognizes amino acid residues 30-44, 109-123, 304-318, or 346-360 of SEQ ID NO:2.

- 77. The antibody as defined in claim 73, which is a monoclonal antibody.
- 78. The antibody as defined in claim 73, which is a humanized antibody.
  - 79. A hybridoma for producing the antibody as defined in claim 73.

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- 80. A method for detecting the presence of a mammalian Presenilin protein in a biological sample, the method comprising:
- (i) contacting the biological sample with an antibody as defined in claim 73,
- (ii) incubating the sample and the antibody under conditions to induce binding of the antibody to the sample to form a complex,
  - (iii) separating the complex from the sample, and
  - (iv) detecting the complex.
- 81. (Amended) The method as defined in claim 80, wherein the mammalian Presentiin protein has a sequence as depicted in SEQ ID NOs: 2, 4, 134, 136, or 138.